CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1-46. (Cancelled)

47. (Previously Presented) A system for use with an exhaustible power source and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when a switch connected to said first input has been activated or deactivated, and when in use with said power source and said load, said input and said switch do not form a serial link in a circuit that conducts energy from the power source to activate the light generating load and wherein said switch is a user interface;

(b) said microchip being configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the load, in response to at least a signal received through said first input such that at least two levels of illumination can be activated; and

(d) said microchip further configured to control at least one function selected from the group consisting of:

(i) a low energy consuming find-in-the-dark location indicator that is active when the load is not activated by the user and when the power source is not being charged, said indicator also gives an indication of the said switch operations;

(ii) a power source level indicator that is not dependent on user selection and/or light generating load activation, and is active when the power source is not being charged; and

(iii) a gradual adjustment of power to the load, such that the gradual change in power is not easily visible to the human eye, and wherein the adjusted power level is based on operator actions.

48. (Previously Presented) The system of claim 47, comprising a single switch connected to a single input of said microchip, wherein said switch is the only interface switch.

49. (Previously Presented) The system of claim 47, wherein the microchip controls at least two functions selected from the group in (d).

50. (Previously Presented) The system of claim 49, comprising a single switch connected to a single input of said microchip, wherein said switch is the only user activation and deactivation interface switch.

51. (Previously Presented) The system of claim 47, wherein a further function controlled by the microchip comprises at least one function selected from the group consisting of a find–in-the-dark indicator also giving an indication of the remaining power in the power source, providing a gradual increasing power adjustment function when switched on and providing a gradual power reduction function when switched off.

52. (Previously Presented) The system of claim 48, wherein a further function controlled by the microchip comprises at least one function selected from the group consisting of a find-in-the–dark-indicator also giving an indication of the remaining power in the power source, providing a gradual increasing power adjustment function when switched on and providing a gradual power reduction function when switched off.

53. (Previously Presented) The system of claim 47 wherein the microchip is further configured to recognize the selection by the user of specifically the deactivation of the load or off function, by the time duration of switch activation, the time duration of switch de-activation, and the number of activation signals received through said first input.

54. (Previously Presented) The system of claim 50 wherein the microchip is further configured to recognize the selection by the user of specifically the deactivation of the load or off function, by the time duration of the switch deactivation, and the number of activation signals received through said first input.

55. (Previously Presented) The system of claim 48 wherein the microchip is configured to control a flashing function on said load in response to the time period of an activation of the switch being longer than a predefined period.

56. (Previously Presented) The system of claim 47 wherein said microchip is always powered when a power source is connected in the system.

57. (Previously Presented) The system of claim 49 wherein a further function controlled by the microchip comprises at least one function selected from the group consisting of a find in the dark indicator also giving an indication of the remaining power in the power source, providing a gradual increasing power adjustment function when switched on, providing a gradual power reduction function when switched off and an automatic delayed shut-off function in response to an activation signal received through said input.

58. (Previously Presented) The system of claim 57 wherein the microchip recognizes the selection by the user of specifically the switch off function by the time duration of the switch being activated, the time duration of switch being deactivated, and the number of activation signals, received through said first input.

59. (Previously Presented) A system for use with an exhaustible power source and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when an switch connected to said first input has been activated or deactivated, and when in use with said power source and said load, said input and said switch do not form a serial link in the circuit that conducts energy from the power source to energize the light generating load and said at least one switch being a user interface;

(b) said microchip configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the light generating load to provide a different level of illumination, in response to at least a signal received through said first input; and

(d) said microchip further configured to control at least an automatic delayed shut off function in response to an activation signal received through said first input.

60. (Previously Presented) The system of claim 59 wherein the switch is the only user interface switch.

61. (Previously Presented) A system for use with an exhaustible power source and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when an switch connected to said first input has been activated or deactivated, and when in use with said power source and said load, said

input and said switch do not form a serial link in the circuit that conducts energy from the power source to energize the load;

(b) said microchip configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the light generating load to achieve an adjusted illumination level, in response to at least a signal received through said first input; and

(d) said microchip further configured to control at least a find-in-the-dark location indicator that is active when the light generating load is not activated by the user and when the power source is not being charged, said indicator also gives an indication of the said switch operations;

62. (Previously Presented) A system for use with an exhaustible power and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when an switch connected to said first input has been activated or deactivated, and when in use with said power source and said light generating load, said input and said switch do not form a serial link in the circuit that conducts energy from the power source to energize the light generating load;

(b) said microchip configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the light generating load to achieve an adjusted illumination level, in response to at least a signal received through said first input; and

(d) said microchip further configured to control at least said microchip further configured to control at least a power source level indicator that (i) is active when the light generating load is not activated, and/or (ii) is not dependent on user selection, and (iii) is active when the power source is not being charged.

63. (Previously Presented) A system for use with an exhaustible power source and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when a switch connected to said first input has been activated or deactivated, and when in use with said power source and said load, said input and said switch do not form a serial link in the circuit that conducts energy from the power source to energize the light generating load;

(b) said microchip configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the light generating load to achieve an adjusted illumination level, in response to at least a signal received through said first input; and

(d) said microchip further configured to control at least a gradual adjustment of power to the load, such that the gradual change in power is not easily visible to the human eye, and wherein the adjusted power level is based on the time of switch closed and/or open operations.

64. (Previously Presented) A system for use with an exhaustible power source and an energy consuming light generating load, said system comprising:

(a) a microchip having at least a first input, said first input transfers information to said microchip when a switch connected to said first input has been activated or deactivated, and when in use with said power source and said load, said

input and said switch do not form a serial link in the circuit that transfers the energy between the power source and the load;

(b) said microchip configured to control the activation and deactivation of the energy flow from said power source to said light generating load in response to at least a signal received through said first input;

(c) said microchip also configured to control the selection of one of a plurality of operating modes, including at least the adjustment in the power supplied to the light generating load to achieve an adjusted illumination level, in response to at least a signal received through said first input; and

(d) said microchip further configured to control the selection of a specific function by a user being dependent on the time duration of the switch being activated, the time duration of the switch being deactivated, and the number of activation signals received from the switch through said first input.

65. (Previously Presented) The system of claim 64 wherein the microchip controls an adjustment in power supplied to the light generating load through an intermittent power sequence such that any period wherein the power source is not connected to the light source, does not create an easily visible dead period.

66. (Previously Presented) The system of claim 59 wherein the microchip is always powered if a good power source is connected in the system.

67. (Previously Presented) The system of claim 63 wherein the microchip also controls a delayed shut off function in response to an activation command received through said first input.

68. (Previously Presented) The system of claim 65 wherein the microchip also controls a delayed shut off function in response to an activation command received through said first input.

69. (Previously Presented The system of claim 61 wherein the microchip also controls a power source level indicator that is not activated by the user.

70. (Previously Presented) The system of claim 63 wherein the microchip also controls a visual find-in-the-dark indicator that is active when the light generating load is not activated by the user.

71. (Previously Presented) The system of claim 65 wherein the microchip also controls a visual find-in-the-dark indicator that is not activated by the user.

72. (Previously Presented) The system of claim 65 wherein the microchip also controls the indication of the power source level that is not selected by the user.

73. (Previously Presented) The system of claim 64 wherein the microchip also controls a gradual adjustment of the power supplied to the light generating load in response to a signal received through said first input such that the gradual change of power is not easily visible to the user.

74. (Previously Presented) The system of claim 50 wherein a further function controlled by said microchip is an automatic delayed shut off function.

75. (Previously Presented) The system of claim 74 wherein the microchip further controls a find-in-the-dark indicator when the light source is switched off.

76. (Previously Presented) The system of claim 47 wherein the off mode is selected upon receiving a signal indicating the deactivation of the switch, if the preceding period of the switch activation was longer than a certain minimum period.

77. (Previously Presented) The system of claim 47 wherein the microchip also controls a gradual increase in power to the load when switching "on" and/or a gradual reduction in power to the load when switching "off", such that the gradual change in the power supplied to the light generating load is not easily visible to the user.

78. (Previously Presented) The system of claim 50 wherein the system is adapted for use in a flashlight.

79. (Previously Presented) The system of claim 67 comprising a casing and wherein the microchip, the light generating load and the switch are each attached to and/or enclosed in the casing.

80. (Previously Presented) The system of claim 68 comprising a casing and wherein the microchip, the light generating load and the switch are each attached to and/or enclosed in the casing.

81. (Previously Presented) The system of claim 73 comprising a casing and wherein the microchip, the light generating load and the switch are each attached to and/or enclosed in the casing.

82. (Previously Presented) The system of claim 48 wherein a further function controlled by said microchip is an automatic delayed shut off function in response to an activation signal received at least through said first input.

83. (Previously Presented) The system of claim 63 wherein a further function controlled by said microchip is an automatic delayed shut off function.

84. (Previously Presented) The system of claim 47 wherein said system controls all three functions from said group in (d).

85. (Previously Presented) The system of claim 47 wherein the system is adapted for use in a portable lighting product and wherein the said microchip is also configured to control the giving of an indication of the remaining power in said power source when the light generating load is deactivated by the user.

86. (Previously Presented) The system of claim 84 wherein the system is adapted for use in a portable lighting product and the microchip is further configured to control the giving of an indication of the remaining power in said power source.

87. (Previously Presented) The system of claim 47 wherein the microchip is further configured to accept commands that contain at least an address from another controller.

88. (Previously Presented) The system of claim 83 further comprising a casing and wherein the said microchip, said switch and said light generating load are each attached to and/or enclosed in the casing.

89. (Previously Presented) The system of claim 63 wherein the microchip is further configured to accept commands that contain at least an address from another controller.

90. (Previously Presented) The system of claim 83 wherein the microchip is further configured to accept commands that contain at least an address from another controller.

91. (Previously Presented) The system of claim 88 wherein the microchip is further configured to accept commands that contain at least an address from another controller.

92. (Previously Presented) The system of claim 90 wherein said commands are transferred via a power line to the microchip.

93. (Previously Presented) The system of claim 91 wherein said commands are transferred via a power line to the microchip.

94. (Previously Presented) The system of claim 47 in a configuration wherein the system further comprises an energy storage device that supplies energy to said microchip when said power switch is conducting, and wherein when said power switch is not conducting, said storage device is recharged from said power source.

95. (Previously Presented) The system of claim 49 in a configuration wherein the system further comprises an energy storage device that is required to supply energy to said microchip when said power switch is conducting, and wherein when said power switch is not conducting, said storage device is recharged from said power source.

96. (Previously Presented) The system of claim 47 wherein the switch connected to said first input is a touch pad or a touch sensor.

97. (Previously Presented) The system of claim 49 wherein the switch connected to said first input is a touch pad or a touch sensor.

98. (Previously Presented) The system of claim 59 wherein the switch connected to said first input is a touch pad or a touch sensor.

99. (Previously Presented) The system of claim 63 wherein the switch connected to said first input is a touch pad or a touch sensor.

100. (Previously Presented) The system of claim 65 wherein the switch connected to said first input is a touch pad or a touch sensor.

101. (Previously Presented) The system of claim 67 wherein the switch connected to said first input is a touch pad or a touch sensor.

102. (Previously Presented) The system of claim 68 wherein the switch connected to said first input is a touch pad or a touch sensor.

103-144. (Canceled).